

86796

July-06-12 2:53:23 PM

N900040100

Stop ***NS2***

Customer:

Run Start *NR1*

Stop *NR2*

Quality Control

1312-7-89

1B12-7-24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

86796

July-06-12 2:53:23 PM

DAS
16
9-89

politik

xy

1942

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 86796

86796

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July-06-12 2:53:23 PM

Item ID: D3220-042 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Doubler Assembly
Start Date: 7/06/12 Start Qty: 4.00 *4* Cust Item ID:
Required Date: 8/03/12 Req'd Qty: 4.00 *4* Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Chemical Conversion Coat per QSI005 4.1	0.00				4	216	12-7-27	
150									
HandFinish	Memo	0.00							
Hand Finishing									
160	QC3- Inspect Part Finish	0.00				4x			
160									
QC	Memo	0.00							
Quality Control									
170		0.00				4x			
170									
Small Fab	Small Fab	0.00							
Small Fab	Memo								
Small Fab	Assemble D3220-042 doubler as per Dwg D3220								

W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

Work Order ID 86796

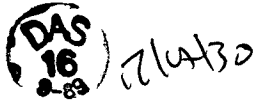
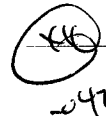
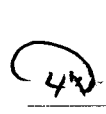
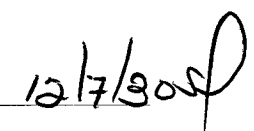
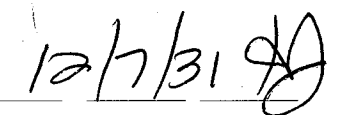
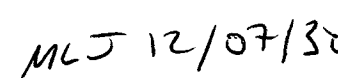
86796

Page 4

July-06-12 2:53:23 PM

Item ID: D3220-042 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Doubler Assembly
 Start Date: 7/06/12 Start Qty: 4.00 *4* Cust Item ID:
 Required Date: 8/03/12 Req'd Qty: 4.00 *4* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00							
190 *190* Packaging Packaging	Identify as per dwg & Stock Location: <u>177</u> Memo	0.00 0.00							
200 *200* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

July-06-12 2:53:22 PM

Page 1

Work Order ID: 86796
Parent Item: D3220-042
Parent Item Name: Doubler Assembly

Start Date: 7/06/12

Required Date: 8/03/12

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 05-11-06 JLM
IPP: B 06.11.15 waterjet EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.050 2024-T3 .050 sheet		Purchased	No			100	sf	253.5000	0.6926	2.9162104	31	12-7-04	
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT022		253.5							
				117684		22.8							
				121216		89.2							
				121889		141.5							
MS20426AD3-3 Rivet		Purchased	No			170	Each	2,885.0000	8	32			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST316		2885							
				119109		537							
				121011		1931							
				19099		417							
MS21059L4 Nutplate		Purchased	No			170	Each	48.0000	4	16			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST301		8							
				117887		3							
				119623		5							
				ST302		40							
				121060		40							

4

121889

32

15

M22441

12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	<i>56796</i>
Description: Doubler		Part Number:	D3220-2
Inspection Dwg: D3220 Rev: A1		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
5.50	+/-0.030	5.508	2		V 1B02	
14.25	+/-0.030	14.26	2		T 1B01	
R0.50	+/-0.030	.50	2		R.G	
7.00	+/-0.030	7.007	2		V	
7.000	+/-0.005	7.008	2		V	
1.50	+/-0.030	1.503	2		V	
1.000	+/-0.005	1.000	2		V	
0.500	+/-0.005	.500	2		V	
1.000	+/-0.005	.999	2		V	
Ø0.316	+0.006/-0.001	.316	2		V	
Ø0.098	+0.004/-0.001	.098	2		V	
0.050 thick	+/-0.005	.048	2		✓	
Grain Direction	N/A		2			

Measured by: <i>JB</i>	Audited by: <i>SMB</i>	Prototype Approval:	N/A
Date: <i>12-7-24</i>	Date: <i>12.7.24</i>	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	07.09.06	New Issue	KJ/JLM	<i>JB</i>

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

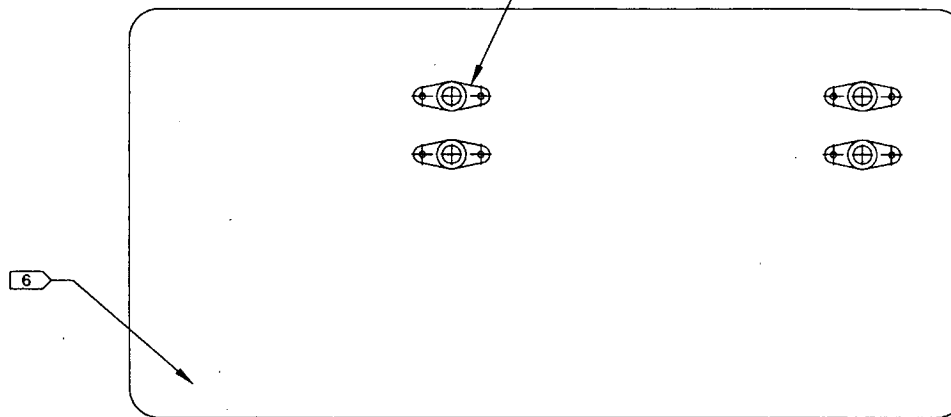
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NOTE: Date & initial all entries

Item	Qty -041	Qty -042	Part Number	Description
1	X		D3220-041	DOUBLER ASSEMBLY
2		X	D3220-042	DOUBLER ASSEMBLY
3	1		D3220-1	DOUBLER
4		1	D3220-2	DOUBLER
5	4	4	MS21059L4	NUTPLATE
6	8	8	MS20426AD3-3	RIVET

B
MS21059L4 NUTPLATE
MS20426AD3-3 RIVET, 2X
4 PL



D3220-1/2 DOUBLER

**D3220-041 DOUBLER ASSEMBLY (SHOWN WITH D3220-1 DOUBLER)
D3220-042 (OPPOSITE)**

SHOP COPY
RETURN TO
ENGINEER
UNCONTROLLED
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 86796

pl 12-07-9

RELEASED
2009-09-09

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-04X" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D3220-041 = 0.53 lbs
D3220-042 = 0.53 lbs

B	DRAWING UPDATED TO CURRENT STANDARDS. Ø0.316 WAS Ø0.323 (ZN C8-2, B4-3); MS20426AD3-3 WAS MS20426AD3-4 (ZN D4-1); CORRECT TYPO NOTE 1 (ZN A8-2, A8-3); REF PAR 09-025		RF	09.07.08
A	NEW ISSUE		CP	03.10.16
REV.	DESCRIPTION		BY	DATE
DESIGN	DS	DART AEROSPACE LTD		
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA		
CHECKED		DRAWING NO.	REV. B	
MFG. APPR.		D3220	SHEET 1 OF 4	
APPROVED		TITLE	SCALE	
DE APPR.		DOUBLER	NTS	
DATE	09.07.08		COPYRIGHT © 2003 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Dart Aerospace Ltd

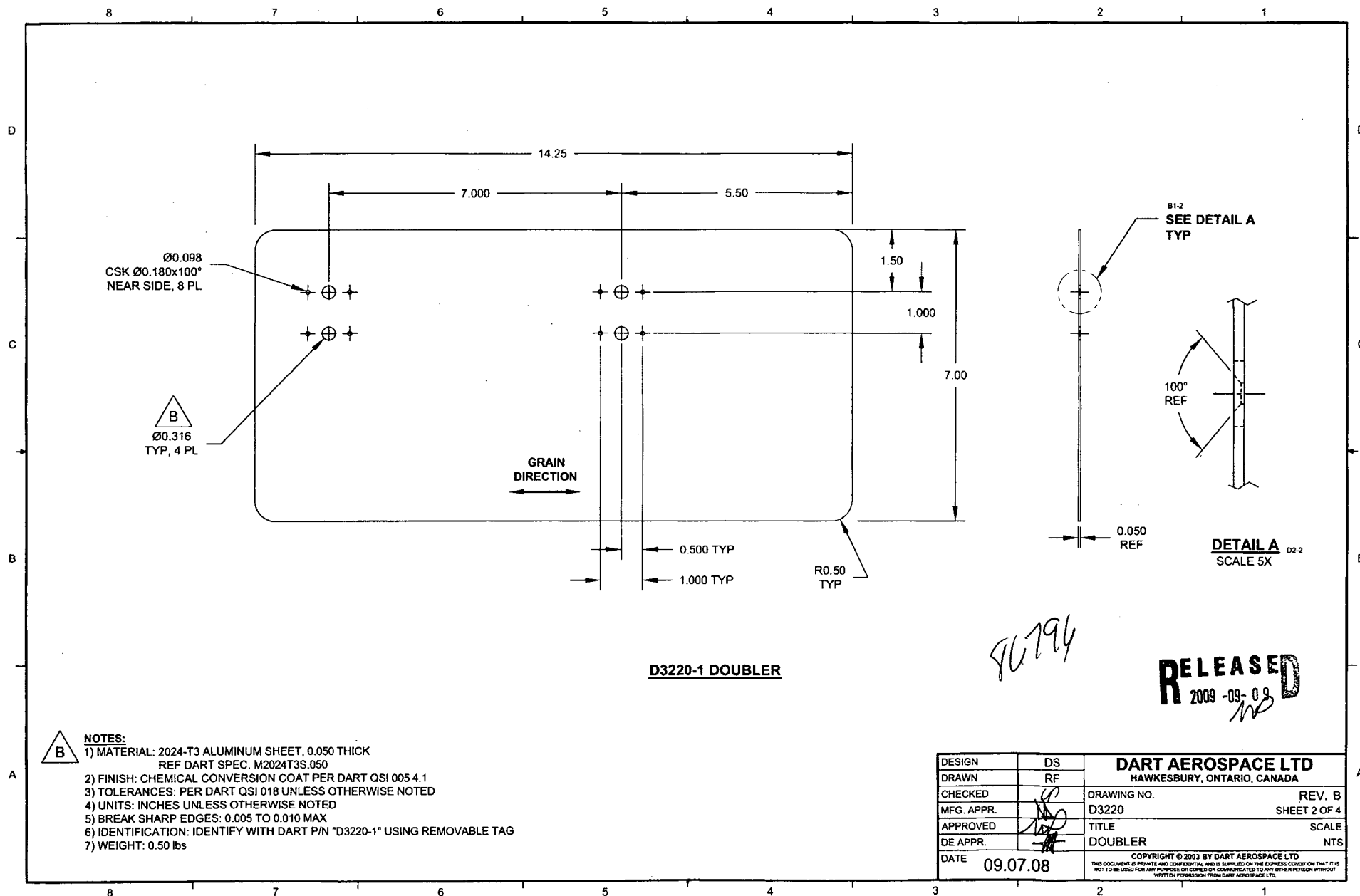
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries






D3220-1 DOUBLER



NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK
REF DART SPEC. M2024T3S.050
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-1" USING REMOVABLE TAG
- 7) WEIGHT: 0.50 lbs

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	UP	DRAWING NO.	REV. B
MFG. APPR.		D3220	SHEET 2 OF 4
APPROVED		TITLE	SCALE
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2009-09-09
MP

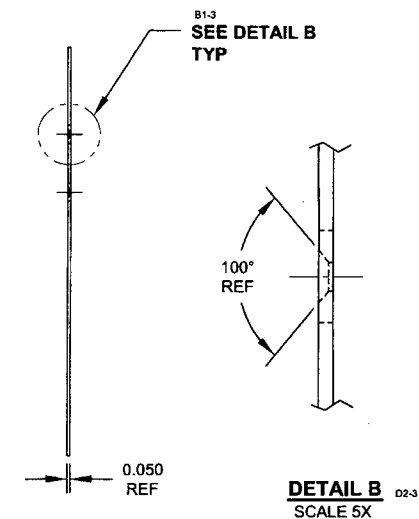
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			





NOTE: Date & initial all entries



56796

RELEASED
2009-09-09

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK
REF DART SPEC. M20243TS.050
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-2" USING REMOVABLE TAG
- 7) WEIGHT: 0.50 lbs

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3220	SHEET 3 OF 4
APPROVED		TITLE	SCALE
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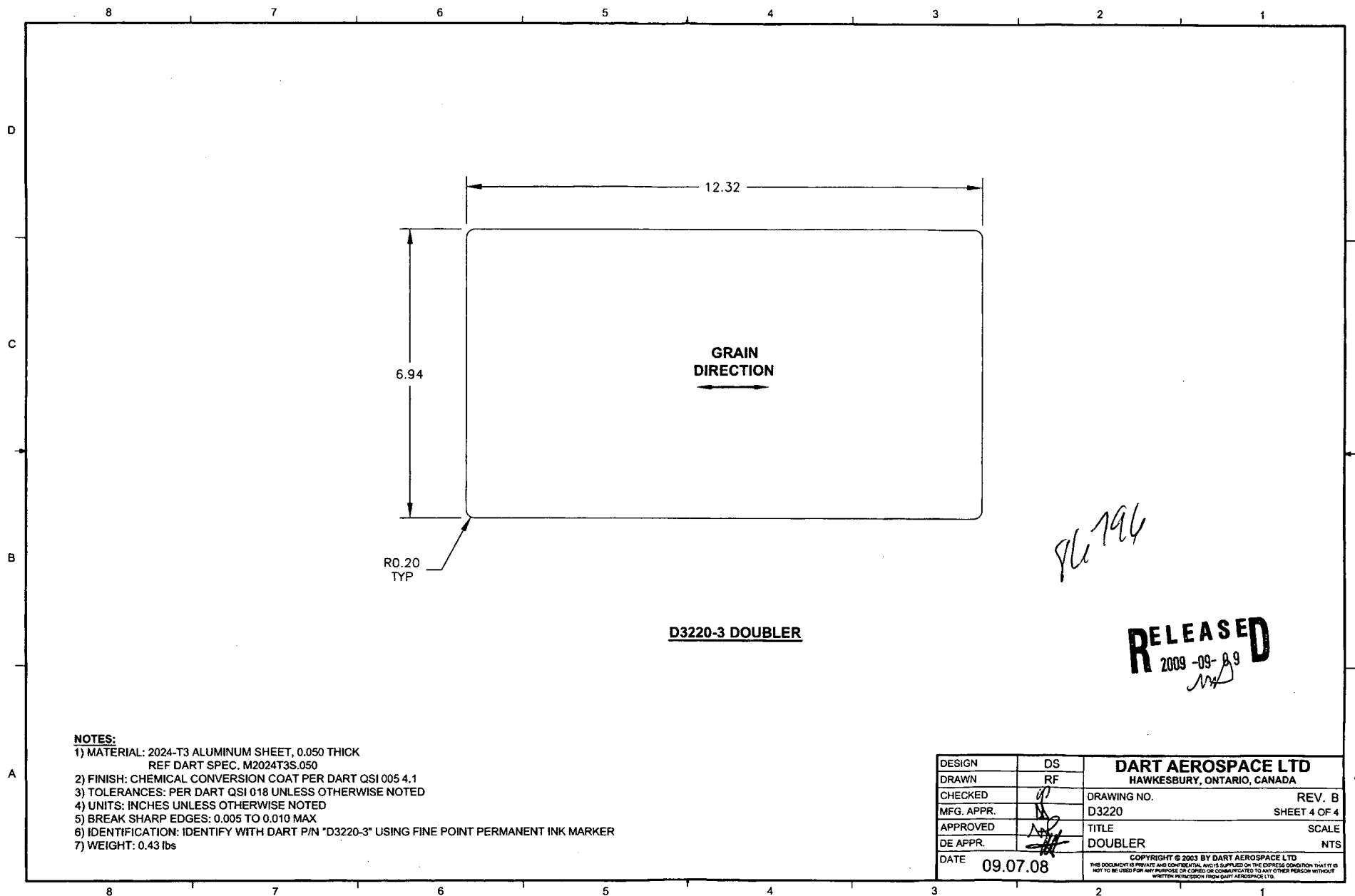
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NOTE: Date & initial all entries



86796

D3220-3 DOUBLER

RELEASED
2009-09-09

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.050 THICK
REF DART SPEC. M2024T3S.050
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3220-3" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.43 lbs

DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	JP	DRAWING NO.	REV. B
MFG. APPR.	JP	D3220	SHEET 4 OF 4
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